

LEMBAR KERJA SISWA

NAMA :

KELAS :

LENGAKAPI TITIK – TITIK DI BAWAH INI!

1. Diketahui fungsi distribusi peluang variabel acak diskrit X berikut. $f(x) =$

$$\begin{cases} 0, & \text{untuk } x \text{ yang lain} \\ \frac{x-k}{10}, & \text{untuk } x = 3, 4, 5, \text{ dan } 6 \end{cases}$$

Nilai k adalah ...

Jawab :

$$f(x) = \begin{cases} 0, & \text{untuk } x \text{ yang lain} \\ \frac{x-k}{10}, & \text{untuk } x = 3, 4, 5, \text{ dan } 6 \end{cases}$$

$$f(4) = \frac{4 - \boxed{\dots}}{10}$$

$$f(1) = 0$$

$$f(5) = \frac{\frac{x-k}{10}}{10} = \frac{\boxed{\dots} - \boxed{\dots}}{10}$$

$$f(2) = \boxed{\dots}$$

$$f(3) = \frac{x-k}{10}$$

$$f(3) = \frac{3-k}{\boxed{\dots}}$$

$$f(6) = \frac{x-k}{10} = \frac{\boxed{\dots} - \boxed{\dots}}{\boxed{\dots}}$$

$$f(4) = \frac{x-k}{10}$$

$$\sum_{x=1}^6 f(x) = 1$$

$$\sum_{x=1}^6 f(x) = f(1) + f(2) + f(3) + f(4) + f(5) + f(6)$$

$$1 = 0 + \boxed{\dots} + \frac{3-k}{10} + \frac{\boxed{\dots}-k}{10} + \frac{\boxed{\dots}-k}{10} + \frac{\boxed{\dots}-k}{10}$$

$$1 = \frac{3 + \boxed{\dots} + \boxed{\dots} + 6 - \boxed{\dots} k}{10}$$

$$1 = \frac{\boxed{\dots} - 4k}{10}$$

$$1 \times 10 = 18 - 4k$$

$$10 - 18 = -4k$$

$$\boxed{\dots} = -4k$$

$$k = \boxed{\dots}$$

2. Diketahui tabel distribusi kumulatif variabel acak diskrit X berikut.

$X = x$	1	2	3
$F(x)$	$\frac{1}{2}$	n	1

Jika $f(2) = \frac{1}{4}$, nilai n adalah ...

Jawab:

$$f(1) = F(1) - F(0)$$

$$= \frac{1}{2} - 0$$

$$= \frac{1}{2}$$

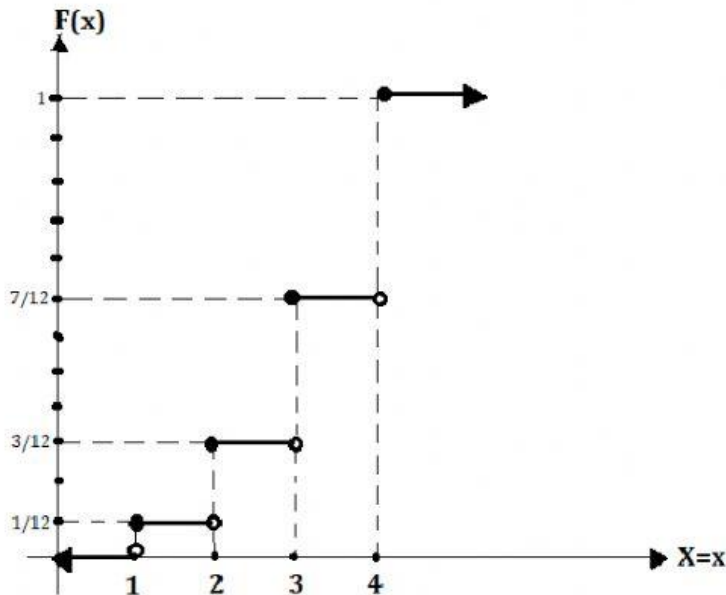
$$n = F(2)$$

$$= f(1) + f(2)$$

$$= \frac{\boxed{\dots}}{2} + \frac{\boxed{\dots}}{4}$$

$$= \frac{\boxed{\dots}}{4}$$

3. Diketahui grafik distribusi kumulatif variabel acak diskrit X berikut.



Nilai $P(X = 1 \text{ atau } X = 3)$ adalah ...

Jawab :

$$\begin{aligned}
P(X = 1 \text{ atau } X = 3) &= P(X = 1) + P(X = 3) \\
&= f(1) + f(3) \\
&= (F(\dots) - F(0)) + (F(3) - F(2)) \\
&= \left(\frac{1}{12} - 0\right) + \left(\frac{\dots}{12} - \frac{3}{\dots}\right) \\
&= \frac{\dots}{\dots} + \frac{4}{12} \\
&= \frac{\dots}{\dots}
\end{aligned}$$